

I

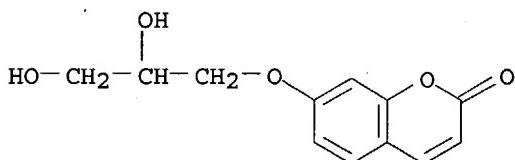
AB Novel coumarin derivs., e.g. I, comprising a coumarin moiety linked to a non-nucleosidic backbone moiety were prepared and incorporated into DNA. The resulting mols. are typically used as photo-activate crosslinking groups when incorporated into polynucleotides as replacements for one or more of the complementary nucleoside bases present in probes used in procedures involving nucleic acid hybridization reactions.

IT 22919-21-7P 180344-43-8P 180344-44-9P
183140-81-0P 670223-41-3P 670223-42-4P
670223-43-5P 670223-45-7P 670223-46-8P
670223-47-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of non-nucleosidic coumarin derivs. as polynucleotide-crosslinking agents in synthesis of DNA)

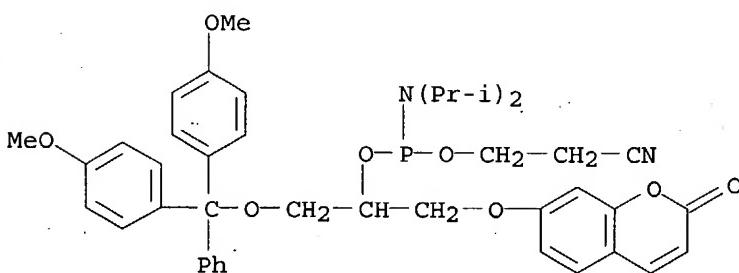
RN 22919-21-7 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-(2,3-dihydroxypropoxy)- (9CI) (CA INDEX NAME)



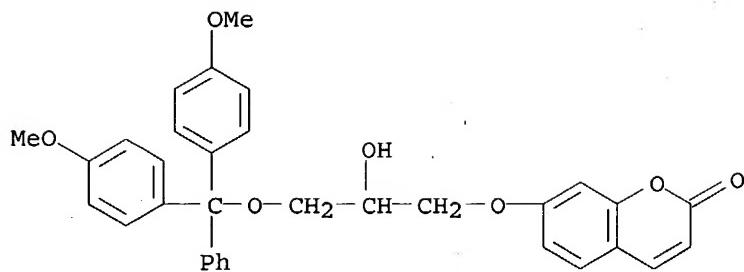
RN 180344-43-8 CAPLUS

CN Phosphoramidous acid, bis(1-methylethyl)-, 1-[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2-[(2-oxo-2H-1-benzopyran-7-yl)oxylethyl 2-cyanoethyl ester (9CI) (CA INDEX NAME)

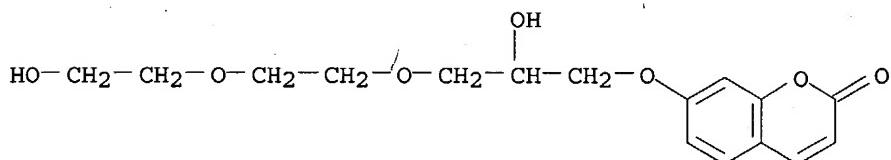


RN 180344-44-9 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-[3-[bis(4-methoxyphenyl)phenylmethoxy]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)

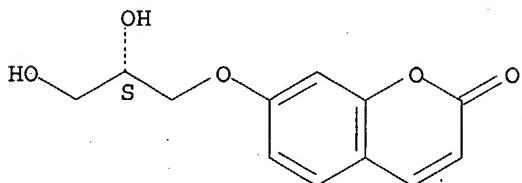


RN 183140-81-0 CAPLUS
 CN 2H-1-Benzopyran-2-one, 7-[2-hydroxy-3-[2-(2-hydroxyethoxy)ethoxy]propoxy] - (9CI) (CA INDEX NAME)



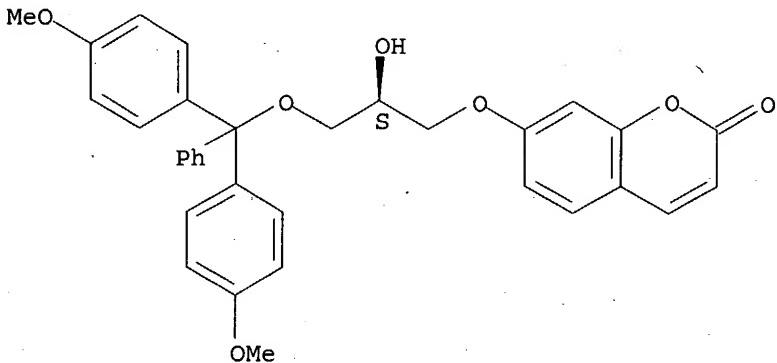
RN 670223-41-3 CAPLUS
 CN 2H-1-Benzopyran-2-one, 7-[(2S)-2,3-dihydroxypropoxy] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 670223-42-4 CAPLUS
 CN 2H-1-Benzopyran-2-one, 7-[(2S)-3-[bis(4-methoxyphenyl)phenylmethoxy]-2-hydroxypropoxy] - (9CI) (CA INDEX NAME)

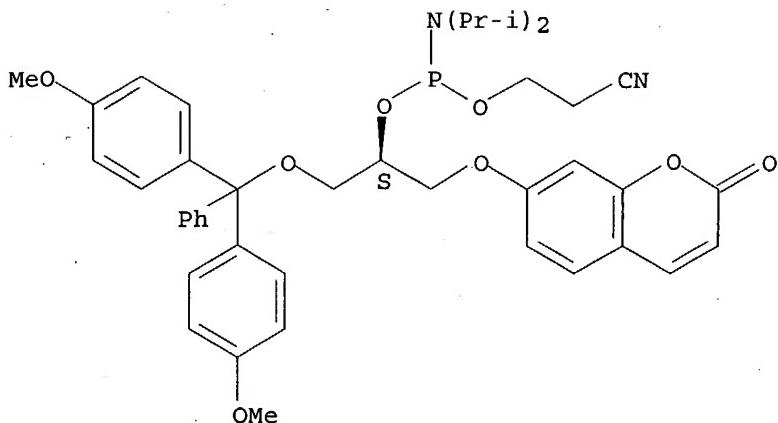
Absolute stereochemistry.



RN 670223-43-5 CAPLUS
 CN Phosphoramidous acid, bis(1-methylethyl)-, (1S)-1-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2-[(2-oxo-2H-1-benzopyran-7-

yl)oxy]ethyl 2-cyanoethyl ester (9CI) (CA INDEX NAME)

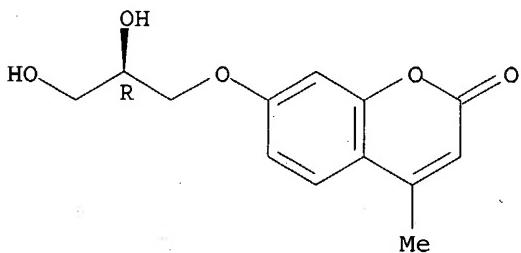
Absolute stereochemistry.



RN 670223-45-7 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-[(2R)-2,3-dihydroxypropoxy]-4-methyl- (9CI) (CA INDEX NAME)

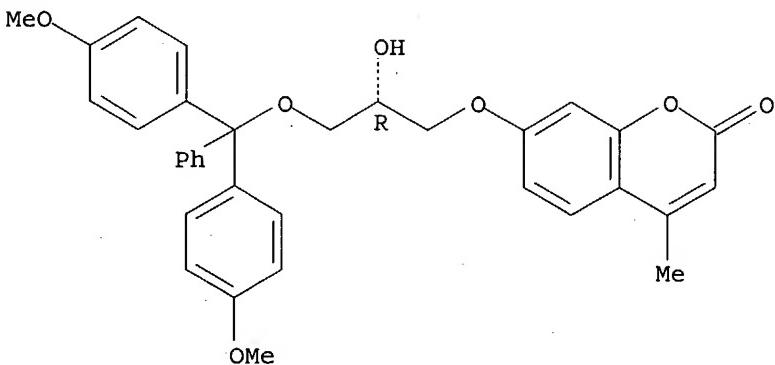
Absolute stereochemistry.



RN 670223-46-8 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-[(2R)-3-[bis(4-methoxyphenyl)phenylmethoxy]-2-hydroxypropoxy]-4-methyl- (9CI) (CA INDEX NAME)

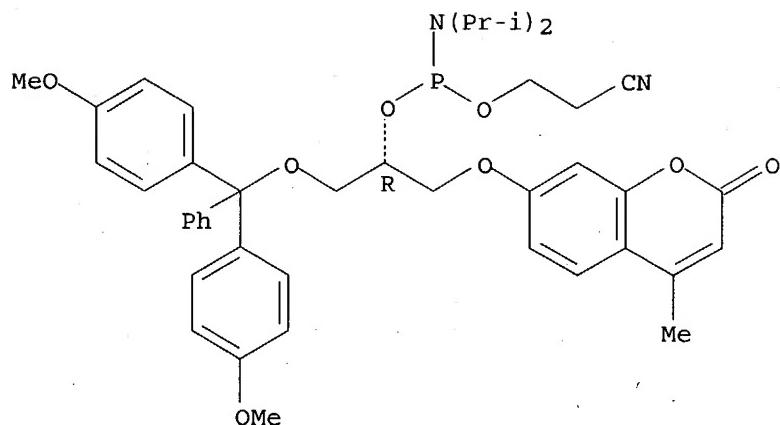
Absolute stereochemistry.



RN 670223-47-9 CAPLUS

CN Phosphoramidous acid, bis(1-methylethyl)-, (1R)-1-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2-[(4-methyl-2-oxo-2H-1-benzopyran-7-yl)oxy]ethyl 2-cyanoethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 670223-48-0P 670223-49-1DP, phosphoramidite derivs.

670223-50-4DP, phosphoramidite derivs. 670223-51-5DP,

phosphoramidite derivs. 670223-52-6DP, phosphoramidite derivs.

670223-54-8P

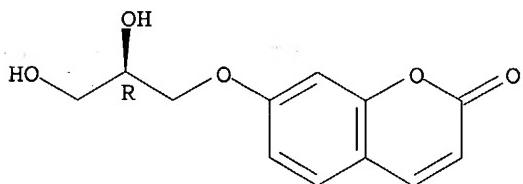
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of non-nucleosidic coumarin derivs. as polynucleotide-crosslinking agents in synthesis of DNA)

RN 670223-48-0 CAPPLUS

CN 2H-1-Benzopyran-2-one, 7-[(2R)-2,3-dihydroxypropoxy]- (9CI) (CA INDEX NAME)

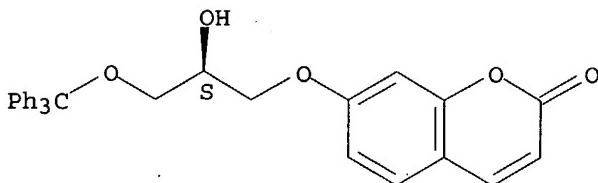
Absolute stereochemistry.



RN 670223-49-1 CAPPLUS

CN 2H-1-Benzopyran-2-one, 7-[(2S)-2-hydroxy-3-(triphenylmethoxy)propoxy]- (9CI) (CA INDEX NAME)

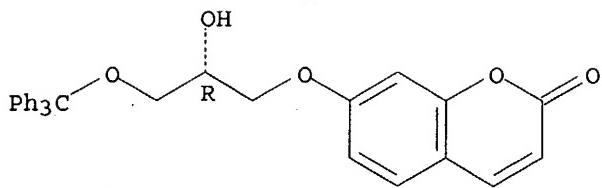
Absolute stereochemistry.



RN 670223-50-4 CAPPLUS

CN 2H-1-Benzopyran-2-one, 7-[(2R)-2-hydroxy-3-(triphenylmethoxy)propoxy]- (9CI) (CA INDEX NAME)

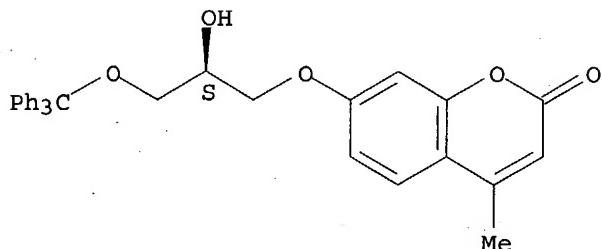
Absolute stereochemistry.



RN 670223-51-5 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-[(2S)-2-hydroxy-3-(triphenylmethoxy)propoxy]-4-methyl- (9CI) (CA INDEX NAME)

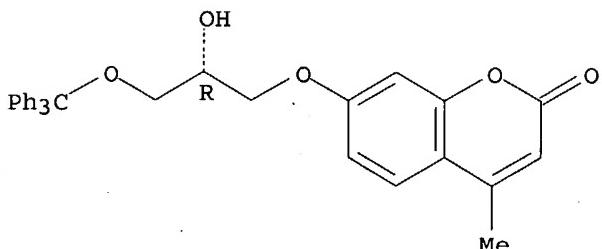
Absolute stereochemistry.



RN 670223-52-6 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-[(2R)-2-hydroxy-3-(triphenylmethoxy)propoxy]-4-methyl- (9CI) (CA INDEX NAME)

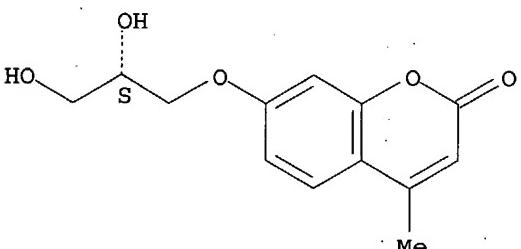
Absolute stereochemistry.



RN 670223-54-8 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-[(2S)-2,3-dihydroxypropoxy]-4-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER:

2004:220426 CAPLUS

DOCUMENT NUMBER:

140:271149

TITLE:

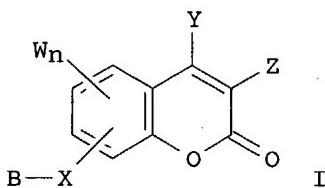
Non-nucleosidic coumarin derivatives as polynucleotide-crosslinking agents

INVENTOR(S): Cheng, Peter C.; Mizoguchi, Tadashi J.
 PATENT ASSIGNEE(S): Naxcor, Inc., USA
 SOURCE: PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

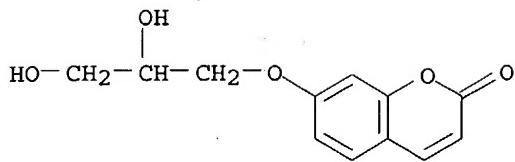
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022703	A2	20040318	WO 2003-US25850	20030905
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2002-408633P P 20020906
 OTHER SOURCE(S): MARPAT 140:271149

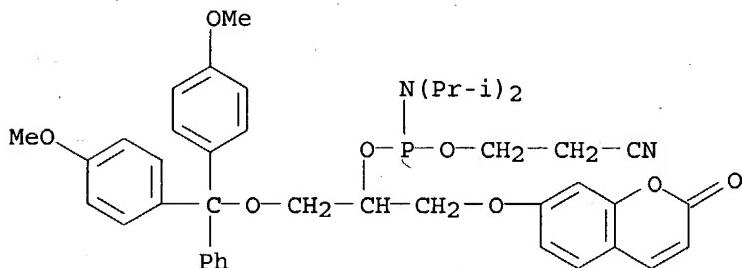
L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
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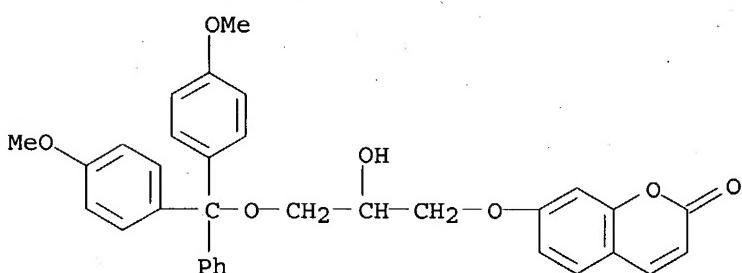
- AB** Novel coumarin derivs. comprising a coumarin moiety linked to a non-nucleosidic backbone moiety I [B = hydrocarbon, heterocycle aromatic; X = bond, hydrocarbon, (un)substituted alkyl; W = OH, halogen, amino, amido, azido, nitro, thio, carboxy, carbonyl, perfluoromethyl, cyano, n = 0-3; Y, Z = H, F, alkyl] are disclosed. The resulting mols. are typically used as photoactivate crosslinking groups when incorporated into polynucleotides as replacements for one or more of the complementary nucleoside bases present in probes used in procedures involving nucleic acid hybridization reactions.
- IT** 22919-21-7P 180344-43-8DP, Gene E6 and Chlamydia trachomatis plasmid crosslinked 180344-44-9P 183140-81-0DP, Gene E6 and Chlamydia trachomatis plasmid crosslinked
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of non-nucleosidic coumarins as polynucleotide-crosslinking agents)
- RN** 22919-21-7 CAPLUS
CN 2H-1-Benzopyran-2-one, 7-(2,3-dihydroxypropoxy)- (9CI) (CA INDEX NAME)



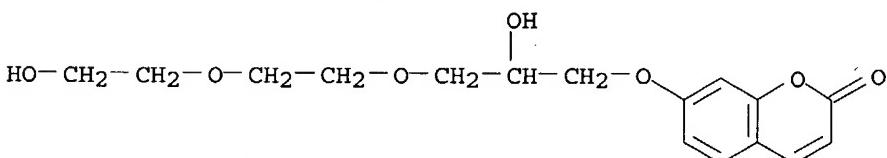
RN 180344-43-8 CAPLUS
 CN Phosphoramicidous acid, bis(1-methylethyl)-, 1-[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2-[(2-oxo-2H-1-benzopyran-7-yl)oxy]ethyl 2-cyanoethyl ester (9CI) (CA INDEX NAME)



RN 180344-44-9 CAPLUS
 CN 2H-1-Benzopyran-2-one, 7-[3-[bis(4-methoxyphenyl)phenylmethoxy]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



RN 183140-81-0 CAPLUS
 CN 2H-1-Benzopyran-2-one, 7-[2-hydroxy-3-[2-(2-hydroxyethoxy)ethoxy]propoxy]- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1999:808682 CAPLUS
 DOCUMENT NUMBER: 132:35996
 TITLE: Preparation of non-nucleosidic coumarins as polynucleotide-crosslinking agents
 INVENTOR(S): Wood, Michael L.; Cheng, Peter C.; Thien, Douglas Y.; Albagli, David
 PATENT ASSIGNEE(S): Naxcor, USA
 SOURCE: U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 46,568,

abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 9
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6005093	A	19991221	US 1995-401630	19950309
CA 2159356	AA	19941027	CA 1994-2159356	19940323
PT 693065	T	20020531	PT 1994-914724	19940323
ES 2169071	T3	20020701	ES 1994-914724	19940323
CA 2214835	AA	19960919	CA 1996-2214835	19960308
WO 9628438	A1	19960919	WO 1996-US3134	19960308
		W: AU, CA, CN, FI, JP, NO, SG		
		RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE		
AU 9651864	A1	19961002	AU 1996-51864	19960308
AU 719277	B2	20000504		
EP 827501	A1	19980311	EP 1996-908709	19960308
		R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI		
CN 1181078	A	19980506	CN 1996-193174	19960308
JP 11501927	T2	19990216	JP 1996-527721	19960308
US 6277570	B1	20010821	US 1998-149161	19980904
US 6495676	B1	20021217	US 1999-390124	19990903
US 2003134274	A1	20030717	US 2002-272466	20021015
PRIORITY APPLN. INFO.:			US 1993-46568	B2 19930413
			US 1994-364339	A2 19941227
			US 1995-401630	A 19950309
			US 1995-487034	A2 19950607
			US 1995-577121	A2 19951222
			WO 1996-US3134	W 19960308
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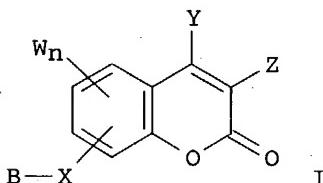
OTHER SOURCE(S) :

MARPAT 132:35996

REFERENCE COUNT:

42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
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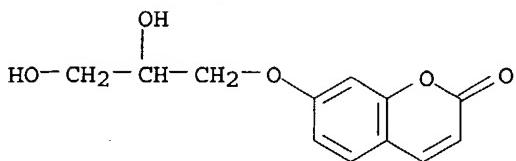
AB Novel coumarin derivs. comprising a coumarin moiety linked to a non-nucleosidic backbone moiety I [B = hydrocarbon, heterocycle aromatic; X = bond, hydrocarbon, (un)substituted alkyl; W = OH, halogen, amino, amido, azido, nitro, thio, carboxy, carbonyl, perfluoromethyl, cyano, n = 0-3; Y, Z = H, F, alkyl] are disclosed. The resulting mols. are typically used as photoactivate crosslinking groups when incorporated into polynucleotides as replacements for one or more of the complementary nucleoside bases present in probes used in procedures involving nucleic acid hybridization reactions.

IT 22919-21-7P 180344-43-8P 180344-44-9P
183140-81-0P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of non-nucleosidic coumarins as polynucleotide-crosslinking agents)

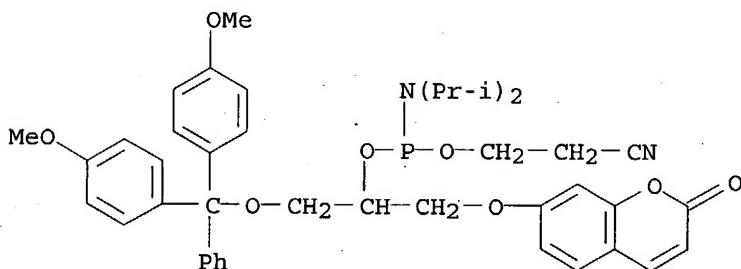
RN 22919-21-7 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-(2,3-dihydroxypropoxy)- (9CI) (CA INDEX NAME)



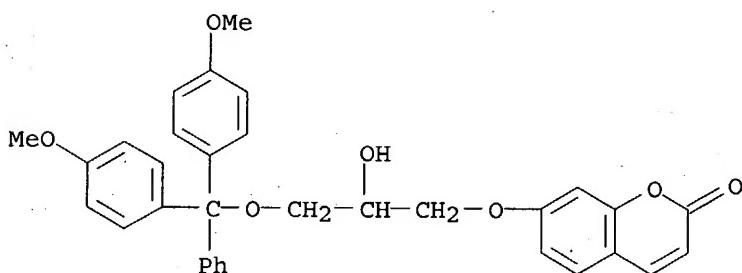
RN 180344-43-8 CAPLUS

CN Phosphoramidous acid, bis(1-methylethyl)-, 1-[bis(4-methoxyphenyl)phenylmethoxy]methyl]-2-[(2-oxo-2H-1-benzopyran-7-yl)oxy]ethyl 2-cyanoethyl ester (9CI) (CA INDEX NAME)



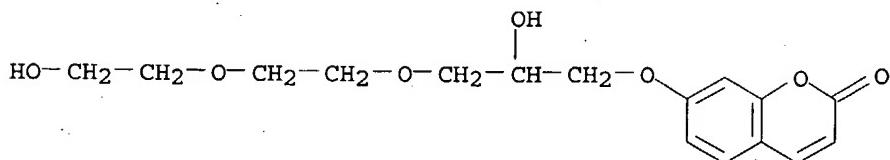
RN 180344-44-9 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-[3-[bis(4-methoxyphenyl)phenylmethoxy]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



RN 183140-81-0 CAPLUS

CN 2H-1-Benzopyran-2-one, 7-[2-hydroxy-3-[2-(2-hydroxyethoxy)ethoxy]propoxy]- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1996:679134 CAPLUS
DOCUMENT NUMBER: 125:329294
TITLE: Preparation of non-nucleosidic coumarins as polynucleotide-crosslinking agents
INVENTOR(S): Wood, Michael L.; Cheng, Peter C.; Thein, Douglas Y.; Albagli, David
PATENT ASSIGNEE(S): Naxcor, USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9628438	A1	19960919	WO 1996-US3134	19960308
W: AU, CA, CN, FI, JP, NO, SG RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6005093	A	19991221	US 1995-401630	19950309
AU 9651864	A1	19961002	AU 1996-51864	19960308
AU 719277	B2	20000504		
EP 827501	A1	19980311	EP 1996-908709	19960308
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11501927	T2	19990216	JP 1996-527721	19960308
PRIORITY APPLN. INFO.:			US 1995-401630	A 19950309
			US 1993-46568	B2 19930413
			WO 1996-US3134	W 19960308
OTHER SOURCE(S):	MARPAT	125:329294		

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